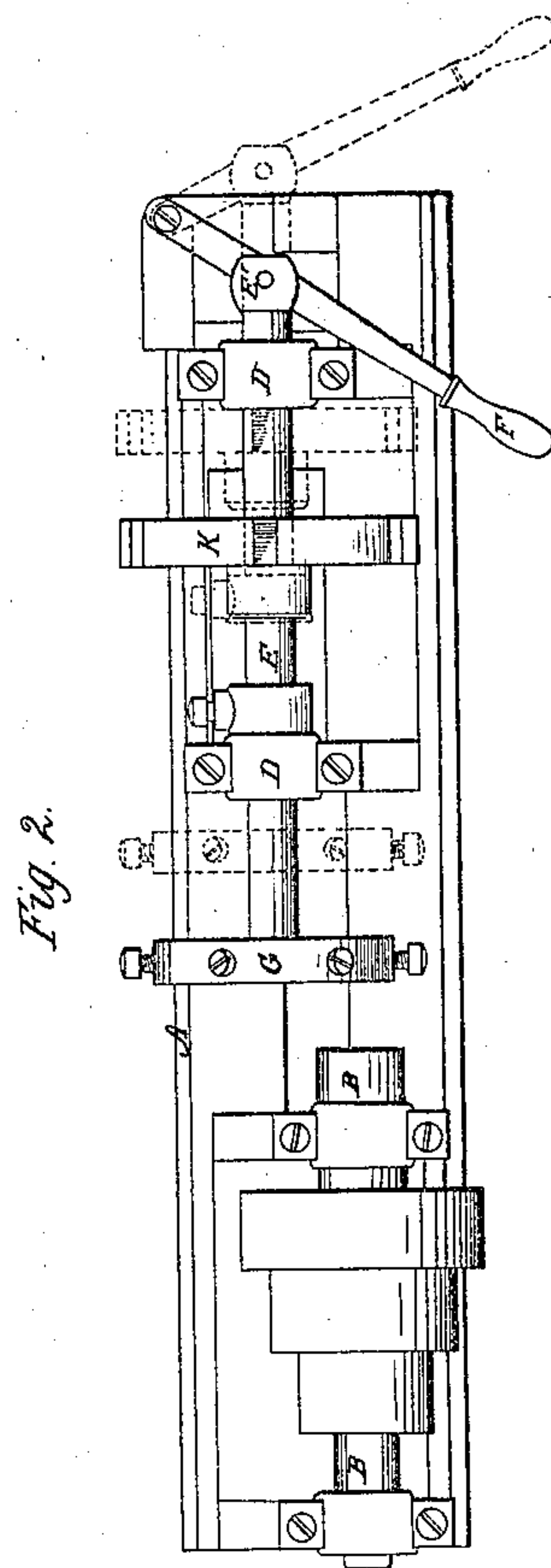
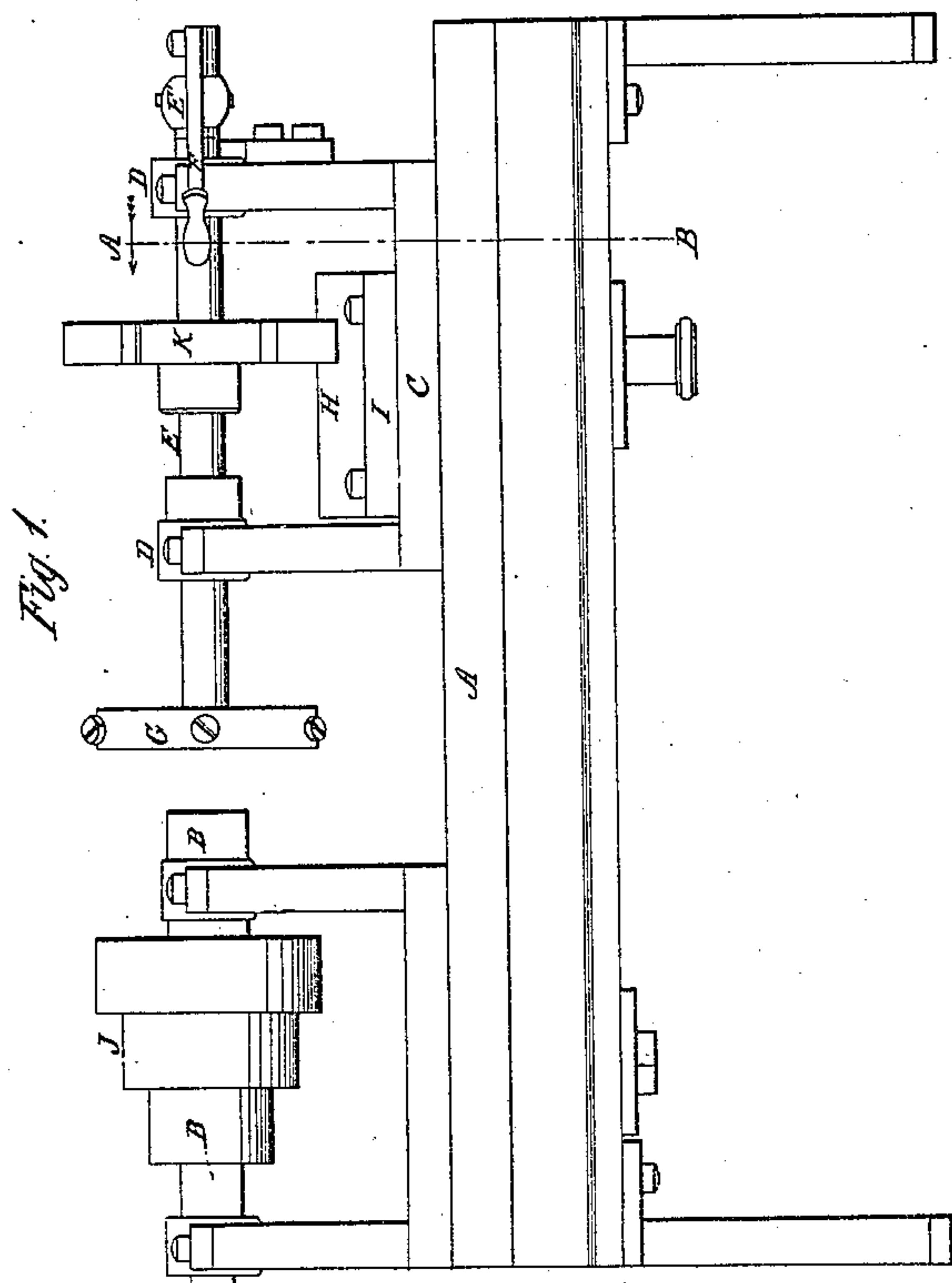
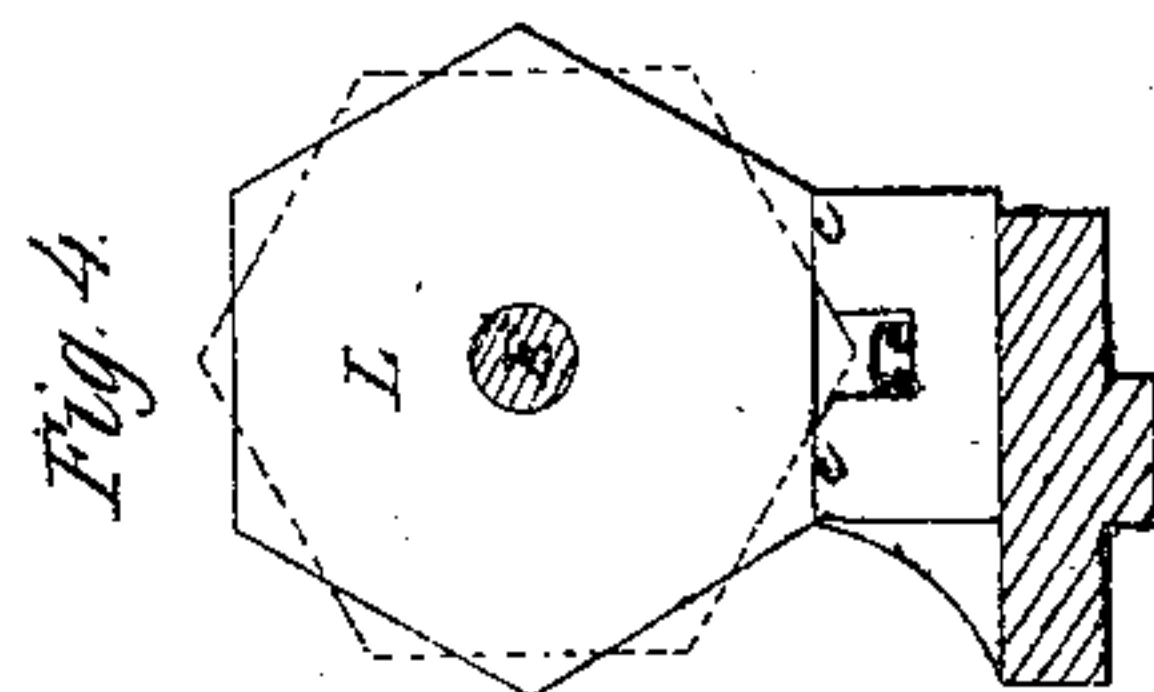
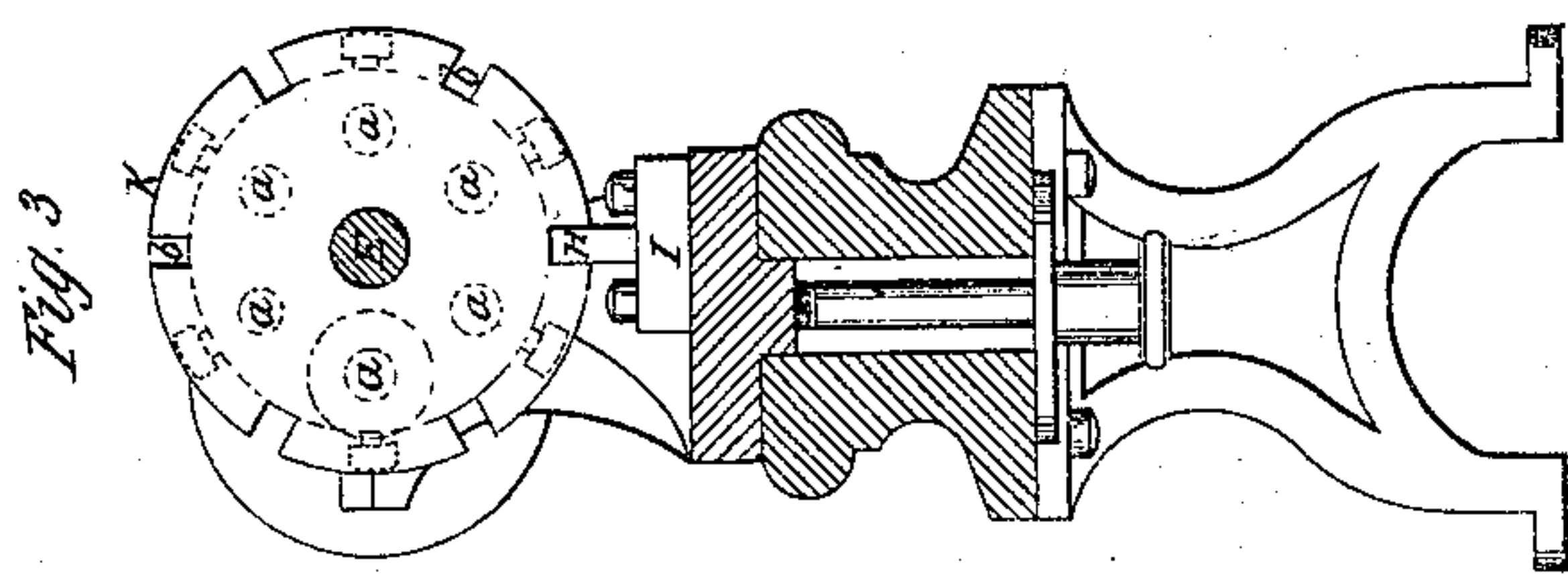


E. A. Bagley
Screw Cutting Mach.

N^o 88,262.

Patented Mar. 30, 1869.



Witnesses,
Thos. H. Dodge
Geo. H. Miller

Inventor.
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United States Patent Office.

E. A. BAGLEY, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 88,262, dated March 30, 1869.

IMPROVEMENT IN SCREW-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

Know all men by these presents:

That I, E. A. BAGLEY, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machines for Making Screws; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of this specification, in which—

Figure 1 represents a side view of a machine for making screws, with my improvements applied thereto;

Figure 2 represents a top or plan view;

Figure 3 represents a section on line A B, fig. 1; and

Figure 4 represents a section of a part of the machine when made in a somewhat different manner from the machine shown in figs. 1, 2, and 3.

To enable those skilled in the art to which my invention belongs, to make and use the same, I will proceed to describe it more in detail.

In the drawings, the main frame is lettered A, upon the front end of which is mounted the usual hollow head B; while, upon the rear of frame A, is mounted the carriage, or frame C, having bearings, or boxes D D, through which the sliding shaft E passes, and which shaft, or spindle E can be moved back and forth freely in said boxes, by means of the hand-lever F, which is hinged to the frame, or carriage C, and also to the swivel-piece E', fastened, or secured to the rear end of spindle E.

Upon the front end of the spindle E, is secured the disk G, which is provided, in this instance, with a series of holes *a*, in which to fasten the tools.

Near the centre of the spindle E, is fastened the holding-plate K, with notches *b*. The latter are made to fit the stationary tongue H, of the piece I, fastened to the frame, or carriage C.

The holes *a* are so made as to be on a line with the centre, or hole in the head B, when disk G is turned around to bring the holes *a* to the front side of the machine. (See dotted lines in fig. 3, showing the relative positions of the parts.)

The operation is as follows:

The rod, or bar to be worked up into screws, is passed in through the hole in the head B, until a sufficient length of rod, or bar, to form the desired screw, projects from the inner end of the head, when the rod is fastened to the head by the usual devices, and a proper motion is then imparted to head B, by belts running upon the cone-pulleys J.

The operator now moves the disk G, in the holes *a* of which the proper tools have been fastened, or secured, so as to bring the first tool to be used on a line with the end of blank bar, or rod in the head B.

Spindle E is now moved forward by means of the lever F; the holding-plate, or device K, shaft, or spindle E, and tool-disk G, being held from turning by reason of the tongue H fitting one of the notches *b*, in the

holding plate K, as shown in dark lines in the drawings.

The notches in the holding-plate K, are so made and arranged as to hold the spindle in proper position to bring the tools in exact positions to act upon the end of the blank bar, or rod, when the spindle E is moved forward, as before explained.

After one tool has been used sufficiently, the operator moves lever F back, thereby moving the spindle E, tool-disk G, and holding-plate K, back also; all as shown in red lines in the drawings.

The holding-plate K is now turned, to bring a new tool in position for action on the blank, when the parts are again moved forward, as before explained, and the operation is repeated until the screw has been completed, ready to be cut from the bar, when it is severed by a cutting-device, not shown in the drawings, but which is in common use, and therefore requires no further description.

After the finished screw, or bolt has been cut off, the blank bar, or rod, is moved forward a sufficient distance to form another screw, or bolt, and the operation is repeated.

It will be observed that any number of tools, together with the necessary dies for making the screw, or bolt, can be attached to the disk G before the operation commences, and then the operator can bring them into action, one after the other, in a very quick and expeditious manner, the tools being held in a true and proper position while being forced up against the end of the blank bar, or rod, by means of the holding-plate K and tongue H.

In lieu of a notched holding-plate, K, a many-sided plate, L, may be used, as indicated in fig. 4.

In this case, a plane surface, or surfaces C, are employed to hold the plate L which is to be fastened to the spindle E.

As a great number of different modes, or devices, can be employed for holding the plate K, without departing from the principle of my invention, I do not limit my invention to any particular mode.

Having described my improved machine for making screws and bolts,

What I claim therein as new, and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with the spindle E and adjustable carriage C, of the notched holding-plate K and tongue H, substantially as and for the purposes set forth.

2. The combination, with the spindle E, and adjustable carriage C, of a holding-plate, or device, tongue H, and lever F, arranged to be operated substantially as and for the purposes set forth.

Witnesses:

THOS. H. DODGE,
GEO. H. MILLER.

E. A. BAGLEY.